

### **REMARKS**

This Amendment is filed in response to the Office Action mailed 09/22/06.

Claims 1-25 were pending in the application prior to this amendment. Claims 1-14 and 16-25 have been rejected and claim 15 has been objected to. Reconsideration and withdrawal of the rejections set forth in the Office Action dated September 22, 2006 are respectfully requested. Claims 6-9, and 18-22 have been cancelled without prejudice in this response so that claims 1-5, 10-17, and 23-25 are pending after entry of this amendment. The objection to claim 9 under 35 U.S.C. §112 has been mooted by the cancellation of claim 9.

#### **I. Rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a)**

Claims 1-6, 9-10, 13-14, 16-23 and 25 are rejected under 35 U.S.C. 102(e), as being anticipated by Darabi et al. (7,031,668).

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darabi et al. (7,031,668).

Claims 11-12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darabi et al. (7,031,668) in view of Cavigelli (5,317,277), and Claim 24 is rejected for the same reasons as set forth in claims 11-12, as method.

#### **II. Allowable Subject Matter**

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **III. Applicants Response**

Applicant acknowledges the allowability of claim 15, and has amended the claim to place it into independent form including all of the limitations of the base claim and any intervening claims.

With respect to the 35 U.S.C. §102(e) and 35 U.S.C. §103(a) rejections, without admitting the propriety of these rejections, Applicant has cancelled claims 18-22 without

prejudice and amended each of independent claims 1, 10, and 23 to distinguish over the cited art. More particularly, Applicant has focused attention on an embodiment that at least has certain features that are shown in and described relative to the embodiment in FIG. 3 and FIG. 5 and at page 7, lines 9-27.

Claim 10 is directed to a dual-mode amplifier unit. The claim has been amended to require that "at least a first stage having an operational amplifier that is in use during both the Bluetooth-compatible mode and the wireless WLAN mode;" and that at least a first feedback component including at least one resistor;". The claim has also been amended to require the following elements and relationships of elements:

*said first feedback component includes a resistor and a capacitor coupled to said first feedback component and said first switch;*

*the dual-mode amplifier unit being responsive to a mode select control signal through a plurality of switches to change the operation between the Bluetooth-compatible mode configuration and the wireless WLAN mode configuration so that:*

*(i) during operation in the Blue-tooth compatible mode the dual-mode amplifier unit is configured as four-stage limiters with AC coupling, a first resistor and a bias current for the operational amplifier setting the amplitude of the limiters output, and a first capacitance C1 and a second resistance R2 setting the AC coupling high-pass corner frequency; and*

*(ii) during the 802.11b WLAN mode the dual-mode amplifier stage is configured as a four-stage voltage gain amplifier and the total gain range is set by the resistance ratio ( $R4/R3$ ) of a fourth resistance R4 to a third resistance R3, and the four voltage gain amplifier stages are DC coupled.*

Applicant submits that none of the references alone or in any combination disclose, teach, suggest, or motivate any need for the the claimed dual-mode amplifier unit of claim 10 have the recited features as now amended. Applicant submits that the amendments are supported in the application as filed and that no new matter has been added. Applicant further submits that claims 11-14, dependent from claim 1 are also allowable over the cited art for at least the same reasons as claim 1 and further because each adds and additional limitation.

With reference to claim 1, applicant has amended the claim directed to "A transceiver" to recite the dual-mode amplifier with additional particularity. In the amended claim 1, the dual mode amplifier unit now further comprises the following features:

*at least a first stage having an operational amplifier that is in use during both the Bluetooth-compatible mode and the wireless WLAN mode;*

*at least a first feedback component including at least one resistor; and*

*at least a first switch coupled to said feedback component and said operational amplifier having a first mode and a second mode, such that in said first mode the dual-mode amplifier unit is operable in said first Bluetooth-compatible mode and the feedback component is disconnected from said operational amplifier and in said second mode the dual-mode amplifier unit is operable in said second 802.11 wireless LAN mode and the feedback component is coupled between an input and an output port of said operational amplifier;*

*said first feedback component including a resistor and a capacitor coupled to said first feedback component and said first switch;*

*the dual-mode amplifier unit being responsive to the mode control signal through a plurality of switches to change the operation between the Bluetooth-compatible mode configuration and the wireless WLAN mode configuration so that:*

*(i) during operation in the Blue-tooth compatible mode the dual-mode amplifier unit is configured as four-stage limiters with AC coupling, a first resistor and a bias current for the operational amplifier setting the amplitude of the limiters output, and a first capacitance C1 and a second resistance R2 setting the AC coupling high-pass corner frequency; and*

*(ii) during the 802.11b WLAN mode the dual-mode amplifier stage is configured as a four-stage voltage gain amplifier and the total gain range is set by the resistance ratio ( $R4/R3$ ) of a fourth resistance R4 to a third resistance R3, and the four voltage gain amplifier stages are DC coupled.*

These added and amended features in claim 1 are analogous to those in independent claim 10 which is directed directly toward the amplifier and not to the transceiver that includes the amplifier. Applicant again submits that none of the references alone or in any combination

disclose, teach, suggest, or motivate any need for the the claimed dual-mode amplifier unit of claim 1 have the recited features as now amended. Applicant submits that the amendments are supported in the application as filed and that no new matter has been added. Applicant further submits that claims 2-5 and 9, dependent from claim 1 are also allowable over the cited art for at least the same reasons as claim 1 and further because each adds and additional limitation.

With reference to claim 23, it is an independent method claim that is directed to a "method to implement a dual-mode amplifier unit ". In analogy with claims 1 and 10, claim 23 had been amended to identify additional features of the dual-mode amplifier as follows:

*the dual-mode amplifier unit being responsive to a mode control signal to change the operation between the Bluetooth-compatible mode and the WLAN mode so that:*

*(i) during operation in the Blue-tooth compatible mode the dual-mode amplifier unit is configured as four-stage limiters with AC coupling, a first resistor and a bias current for the operational amplifier setting the amplitude of the limiters output, and a first capacitance C1 and a second resistance R2 setting the AC coupling high-pass corner frequency; and*

*(ii) during the 802.11b WLAN mode the dual-mode amplifier stage is configured as a four-stage voltage gain amplifier and the total gain range is set by the resistance ratio ( $R4/R3$ ) of a fourth resistance R4 to a third resistance R3, and the four voltage gain amplifier stages are DC coupled.*

These added and amended features in claim 23 are again analogous to those in independent claim 10 which is directed directly toward the dual-mode amplifier. Applicant again submits that none of the references alone or in any combination disclose, teach, suggest, or motivate any need for the the claimed method of implementing a dual-mode amplifier unit of claim 23 have the recited features as now amended. Applicant submits that claims 22-25, dependent from claim 23 are also allowable over the cited art for at least the same reasons as claim 23 and further because each adds and additional limitation. Applicant further submits that the amendments are supported in the application as filed and that no new matter has been added.

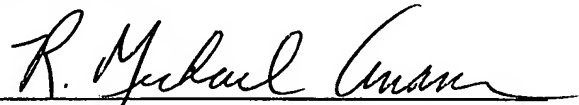
### CONCLUSION

In view of the foregoing, the applicant submits that the claims pending in the application comply with the requirements of 35 U.S.C. §112 and patentably define over the prior art. A Notice of Allowance is therefore respectfully requested.

The Commissioner is hereby authorized to charge fees as indicated above, any additional required fees which may be due, and charge any variance or credit any overpayments to Deposit Account No. 50-2207 (Attorney Docket 61140-8018.US01).

The Examiner is invited to telephone the undersigned attorney at (650) 838-4367 in event that additional issues are raised that would prevent allowance of the pending claims and issuance of a Notice of Allowance.

Respectfully submitted,  
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